

Claims

What is claimed is:

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1. A method of managing logical processors of a computing environment, said method comprising:
 - 3 configuring a logical partition of said computing
 - 4 environment with one or more logical processors; and
 - 5 dynamically adjusting the configuration.
 - 1 2. The method of claim 1, wherein said dynamically
 - 2 adjusting is in response to workload of said logical
 - 3 partition.
 - 1 3. The method of claim 1, wherein said dynamically
 - 2 adjusting comprises increasing a number of logical
 - 3 processors allocated to said logical partition.
 - 1 4. The method of claim 1, wherein said dynamically
 - 2 adjusting comprises decreasing a number of logical
 - 3 processors allocated to said logical partition.
 - 1 5. The method of claim 1, further comprising
 - 2 determining that said configuration is to be adjusted.
 - 1 6. The method of claim 5, wherein said determining is
 - 2 performed at a plurality of time intervals.

1 7. The method of claim 5, wherein said determining
2 comprises using a predefined equation in making the
3 determination.

1 8. The method of claim 7, wherein said predefined
2 equation comprises:

3 $L = \text{floor}[\max(W, U) * P + 1.5]$, wherein

4 L = number of logical processors configured to said
5 logical partition;

6 W = percentage of central processor capacity assigned to
7 said logical partition;

8 U = percentage of central processor capacity currently
9 being utilized by said logical partition; and

10 P = number of physical processors that can be allocated
11 on the central processor associated with said logical
12 partition.

1 9. The method of claim 8, wherein said equation is
2 subject to a maximum of $L = P$.

1 10. The method of claim 7, wherein said determining
2 further comprises comparing a result of said predefined
3 equation with one or more thresholds to determine whether
4 the adjustment is to be made.

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1 11. A system of managing logical processors of a
2 computing environment, said system comprising:

3 means for configuring a logical partition of said
4 computing environment with one or more logical
5 processors; and

6 means for dynamically adjusting the configuration.

1 12. The system of claim 11, wherein said means for
2 dynamically adjusting is in response to workload of said
3 logical partition.

1 13. The system of claim 11, wherein said means for
2 dynamically adjusting comprises means for increasing a
3 number of logical processors allocated to said logical
4 partition.

1 14. The system of claim 11, wherein said means for
2 dynamically adjusting comprises means for decreasing a
3 number of logical processors allocated to said logical
4 partition.

1 15. The system of claim 11, further comprising means
2 for determining that said configuration is to be adjusted.

1 16. The system of claim 15, wherein the determining is
2 performed at a plurality of time intervals.

1 17. The system of claim 15, wherein said means for
2 determining comprises means for using a predefined equation
3 in making the determination.

1 18. The system of claim 17, wherein said predefined
2 equation comprises:

3 $L = \text{floor}[\max(W, U) * P + 1.5]$, wherein

4 L = number of logical processors configured to said
5 logical partition;

6 W = percentage of central processor capacity assigned to
7 said logical partition;

8 U = percentage of central processor capacity currently
9 being utilized by said logical partition; and

10 P = number of physical processors that can be allocated
11 on the central processor associated with said logical
12 partition.

1 19. The system of claim 18, wherein said equation is
2 subject to a maximum of $L = P$.

1 20. The system of claim 17, wherein said means for
2 determining further comprises means for comparing a result
3 of said predefined equation with one or more thresholds to
4 determine whether the adjustment is to be made.

1 27. The at least one program storage device of claim
2 26, wherein the determining is performed at a plurality of
3 time intervals.

1 28. The at least one program storage device of claim
2 26, wherein said determining comprises using a predefined
3 equation in making the determination.

1 29. The at least one program storage device of claim
2 28, wherein said predefined equation comprises:

3 $L = \text{floor}[\max(W, U) * P + 1.5]$, wherein

4 L=number of logical processors configured to said
5 logical partition;

6 W=percentage of central processor capacity assigned to
7 said logical partition;

8 U=percentage of central processor capacity currently
9 being utilized by said logical partition; and

10 P=number of physical processors that can be allocated
11 on the central processor associated with said logical
12 partition.

1 30. The at least one program storage device of claim
2 29, wherein said equation is subject to a maximum of $L=P$.

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